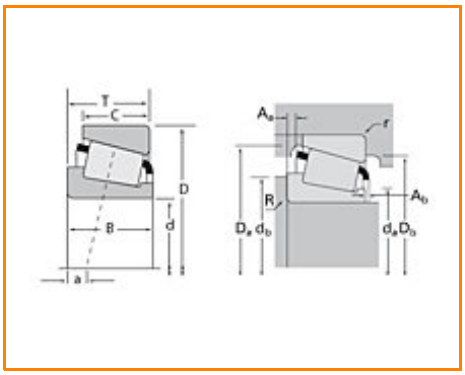
The Timken Company
4500 Mt Pleasant St. NW
N. Canton, OH 44720
Phone: (234) 262-3000
E-Mail: CustomerCAD@timken.com • **Web site:** www.timken.com

Timken Part Number 6554 - 6535, Tapered Roller Bearings - TS (Tapered Single) Imperial

This is the most basic and most widely used type of tapered roller bearing. It consists of two main separable parts: the cone (inner ring) assembly and the cup (outer ring). It is typically mounted in opposing pairs on a shaft.



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Specifications

Series	6500
Cone Part Number	6554
Cup Part Number	6535
Design Units	Imperial
Bearing Weight	5.900 Kg 13.10 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	76.2 mm 3 in

D - Cup Outer Diameter	161.925 mm 6.3750 in
B - Cone Width	63.830 mm 2.5130 in
C - Cup Width	42.863 mm 1.6875 in
T - Bearing Width	62.708 mm 2.4688 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius[1]	3.560 mm 0.14 in
r - Cup Backface "To Clear" Radius[2]	3.30 mm 0.130 in
da - Cone Frontface Backing Diameter	91.95 mm 4.41 in
db - Cone Backface Backing Diameter	99.06 mm 3.90 in
Da - Cup Frontface Backing Diameter	154.43 mm 6.08 in
Db - Cup Backface Backing Diameter	140.97 mm 5.55 in
Ab - Cage-Cone Frontface Clearance	1.5 mm 0.06 in
Aa - Cage-Cone Backface Clearance	12.4 mm 0.49 in
a - Effective Center Location[3]	-21.80 mm -0.86 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)[4]	96100 N 21600 lbf
C1 - Dynamic Radial Rating (1 million revolutions)[5]	371000 N 83300 lbf
C0 - Static Radial Rating	523000 N 118000 lbf
C_{a90} - Dynamic Thrust Rating (90 million revolutions)[6]	65900 N 14800 lbf

Factors

K - Factor[7]	1.46
e - ISO Factor[8]	0.40
Y - ISO Factor[9]	1.5
G1 - Heat Generation Factor (Roller-Raceway)	198.6
G2 - Heat Generation Factor (Rib-Roller End)	33.5
Cg - Geometry Factor	0.104

[1] These maximum fillet radii will be cleared by the bearing corners.
[2] These maximum fillet radii will be cleared by the bearing corners.
[3] Negative value indicates effective center inside cone backface.
[4] Based on 90 x 10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values.
[5] Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.
[6] Based on 90 x 10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.
[7] These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.
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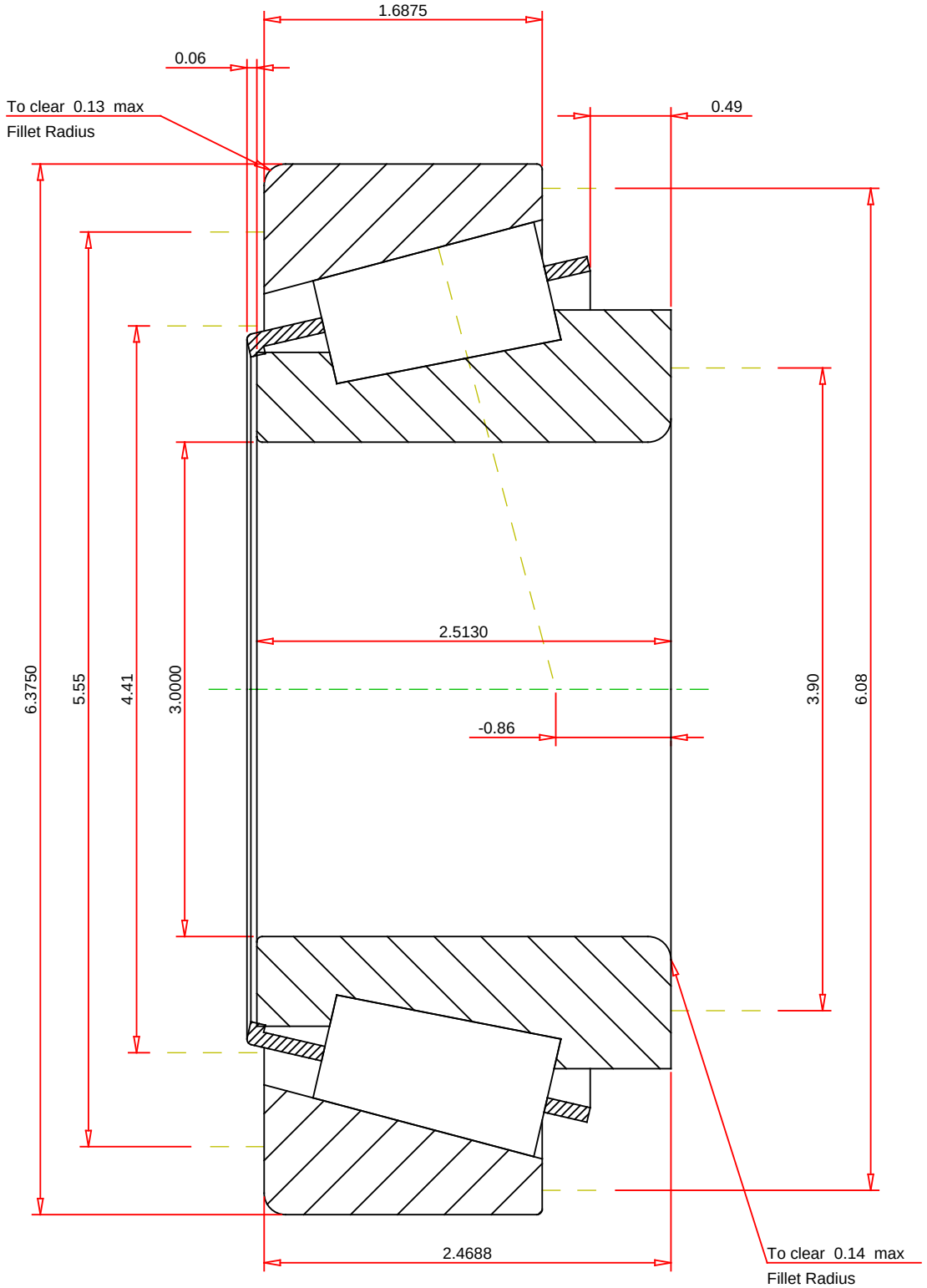

IMPERIAL UNITS

ISO Factor - e	0.4	
ISO Factor - Y	1.5	
Bearing Weight	13.1	lb
Number of Rollers Per Row	19	
Effective Center Location	-0.86	inch

TIMKEN

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

6554 - 6535
TS BEARING ASSEMBLY

K Factor	1.46	
Dynamic Radial Rating - C90	96100	lbf
Dynamic Thrust Rating - Ca90	65900	lbf
Static Radial Rating - C0	523000	lbf
Dynamic Radial Rating - C1	371000	lbf

FOR DISCUSSION ONLY